



Patent  
Attorney Docket No.: 01CON295P-CON

AF  
135

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): **Thyssen et al.**

Group Art Unit: 2654

Application Serial No.: **09/841,764**

Examiner: Nolan, D.

Filed: **April 24, 2001**

Title: **Silence Description Coding for  
Multi-Rate Speech Codecs**

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SEP 30 2004  
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**REQUEST FOR REHEARING  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sirs:

This is a Request for Rehearing, under 37 C.F.R. § 1.196(b)(2), for reconsideration of Decision on Appeal, dated July 23, 2004, which affirmed the Examiner's rejection of claims 21-35, and reversed the Examiner's rejection of claims 36-44 and 46-53.

**REMARKS**

This Request for Rehearing is under 37 C.F.R. § 1.196(b)(2), which requires the request to “address the new ground of rejection and state with particularity the points believed to have been misapprehended or overlooked in rendering the decision and also state all other grounds upon which the rehearing is sought.” For the reasons that follow applicant respectfully addresses the new ground of rejection by the Board and the points that applicant believes to have been misapprehended or overlooked.

**A. Board’s Rejection of Claims 21-35 Under 35 U.S.C. § 103(a)**

Applicant appreciates the Board’s statement that “Rapeli cannot be relied on for teaching that the silence description coding mode is independent of the previous speech signal coding mode”, which was the primary reference being relied upon by the Examiner to reject claims 21-35 of the present application. However, the Board states that the limitation “coding a second segment of the speech signal using a silence description coding mode independent of the speech coding mode used to code the first segment of the speech signal immediately before the second segment” in the representative claim 34 is disclosed in Delargy.

It should be noted, however, the Board also shares applicant’s confusion with respect to the Examiner’s rejection of claims 21-35 based on Delargy. As pointed out by the Board, the Examiner uses Delargy in rejection of claim 38 under the heading for rejection of claims 21-35. Further, as pointed out by the Board, the Examiner does not cite Delargy against claims 36 and 37, which depend from claim 34.

Applicant would like to clarify the Examiner’s rejection of claims based on Delargy, as follows. In response to the first Office Action, applicant amended claim 38 as follows “wherein

the voice activity detector receives first and second segments of a speech signal and identifies a substantially speech-like characteristic of the first ~~and second~~ segments and an absence of a substantially speech-like characteristic of the second segment of the speech signal.” In the second Office Action, and in response to applicant’s amendment, the Examiner stated that the above-amended limitation of claim 38 is shown in Delargy. (See pages 3 and 5 of the Second Office Action.)

In rejecting claims 21-35, the Board states as follows:

Delargy improves upon a speech signal coding standard by coding a frame of silence with a single output byte. If the next frame is also silence, no output is generated. At the time silence is first detected, the operation in Delargy is to code the frame as a single output byte. This coding is not based on the manner in which the previous speech frame was coded and is, therefore, independent of the coding used for the speech signal. If the first segment of representative claim 34 is defined as the last frame of speech before silence in Delargy and the second segment of claim 34 is defined as the first frame of silence, then the operation of Delargy appears to meet the claimed invention. (Pages 9-10 of the Decision on Appeal.)

Applicant respectfully submits that the teaching of Delargy has been misapprehended. Delargy is proposing an improvement over G.723.1 standard for audio compression. (Col. 1, lines 46-47.) According to Delargy, in the G.723.1 standard, the encoder represents every frame containing the spectral characteristic of silence by four byte output, and for example sends 100 four byte data output for a three second pause or silence. (Col. 1, lines 33-42.) To improve G.723.1, Delargy proposes that when silence is detected, the encoder codes the silence and outputs a single byte, rather than potentially 100 four byte outputs for a three second pause or silence. (Col. 1, lines 46-55.)

Applicant respectfully submits that whether the encoder outputs a single byte of output or several hundred bytes of output, the number of bytes of output has no relation to the “coding

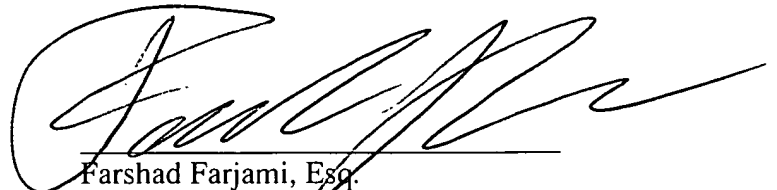
scheme” used by the encoder for coding the silence. For example, Delargy is specifically directed to G.723.1. Both the silence and voice are coded according to the G.723.1 standard. There is, therefore, a clear dependency. In Delargy the frame of speech signal preceding the silence must be encoded according to the G.723.1 standard. Further, the silence is also encoded according to the G.723.1 standard, whether one or more bytes are generated and transmitted to the decoder. Accordingly, the following limitation of claim 34 “coding a second segment of the speech signal using a silence description coding mode independent of the speech coding mode used to code the first segment of the speech signal immediately before the second segment” is not shown by Delargy, because in Delargy, the silence description coding mode is a G.723.1 silence description coding and is taught to be used only as part of G.723.1, and not independent of G.723.1. In other words, Delargy teaches that G.723.1 silence coding is used if the voice signal is coded using G.723.1 voice coding.

In short, Delargy teaches that G.723.1 silence coding is always preceded by G.723.1 voice coding. Therefore, whether G.723.1 silence coding of Delargy is used depends on whether G.723.1 coding is being used, i.e. whether voice signal is being coded using G.723.1 coding. In sharp contrast, claim 34 breaks away from this conventional scheme that dictates such dependence between silence coding and voice coding, and claims “coding a second segment of the speech signal using a silence description coding mode independent of the speech coding mode used to code the first segment of the speech signal immediately before the second segment.”

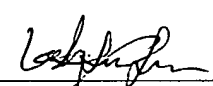
**B. Conclusion**

In light of the foregoing clarification, applicant respectfully requests reconsideration and allowance of claims 21-35 over Delargy and Rapeli, as these references, solely or in combination, fail to disclose, teach or suggest the invention of claims 21-35.

Respectfully Submitted;  
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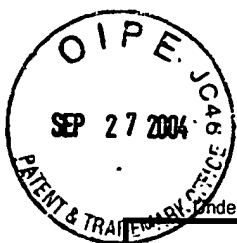
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<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/841,764	
	Filing Date	4/24/2001	
	First Named Inventor	Jes Thyssen	
	Examiner Name	D. Nolan	
	Art Unit	2654	
Total Number of Pages in This Submission	8	Attorney Docket Number	01CON295P-CON

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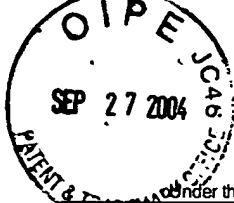
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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant Claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)**0.00**

## Complete if Known

Application Number 09/841,764  
Filing Date 4/24/2001  
First Named Inventor Jes Thyssen  
Examiner Name D. Nolan  
Art Unit 2654  
Attorney Docket No. 01CON295P-CON

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### 1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) (\$)

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims		Extra Claims		Fee from below	Fee Paid
Independent	Claims	- 20**=	X		
		- 3**=	X		
Multiple Dependent					

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1202	18	2202	9	Claims in excess of 20	
1201	86	2201	43	Independent claims in excess of 3	
1203	290	2203	145	Multiple dependent claim, if not paid	
1204	86	2204	43	**Reissue independent claims over original patent	
1205	18	2205	9	**Reissue claims in excess of 20 and over original patent	

SUBTOTAL (2) (\$)

\*\* or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
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1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

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